Puget Sound Science Update

PSP Leadership Council--May 27, 2009

Overview

The Puget Sound Science Update (PS Update) will be the 'go to', 'one stop shopping', state-of-the-science document for the science supporting the work of the PSP. The content of the report will be fully electronic with perhaps short printed summaries to be determined. It will be a primary scientific reporting document and will contain scientific information supporting the main work of the PSP. Its content will be developed following the rigorous peer-review process used by the Intergovernmental Panel on Climate Change (IPCC), in which small author groups produce draft assessment reports synthesizing existing, peer-reviewed scientific information on specific topics identified by policy leaders. The draft assessment reports are then openly and thoroughly reviewed by the scientific community before being revised into final documents and widely disseminated to governments, the media, and the public. The result has been an improvement over time in the quality of scientific information and consistency in media reporting about the state of understanding—and remaining uncertainties—on climate impacts on our human and natural systems. Applying a similar process in Puget Sound should help engage a broad community of scientists in summarizing what we know, highlight areas of key uncertainties, and also reduce opportunities for 'dueling science' underpinning challenging policy decisions the PSP will make.

The content of the PS Update will be revised fairly frequently so that the bane of 'door stop' assessment reports—becoming dated as soon as the printing process is completed—can be avoided. We are working out methods for posting the document as a series of wiki or some kind of web-based pages that are interactive and the level of detail desired on a particular topic is user-defined.

Content and schedule

According to the proposed schedule below, the full outline of the PS Science Update will be ready for posting on the PSP web site by fall, 2009. First iterations of the narrative content of the document will be posted in April (first set of chapters) and June (final set of chapters) 2010.

Begin writing July 2009; Final draft for wiki posting by April 2010

Overview of this document (*internal author*)

a. science content for iterations of PSP Action Agenda
b. consensus state-of-the knowledge report of scientific information in PS ecosystem

Background and context: PSP goals, ecosystem framework, adaptive approach in Action Agenda (*internal author*)

Section 1: Understanding Future and Desired System States (*primary author plus 1 additional author*)

a. Detecting changes in system function: Indicators

b. Defining 'healthy' natural and social systems in Puget Sound: thresholds of indicator response

Section 2A: The Biophysical Condition of Puget Sound (*primary author plus 2 additional authors*)
organize as species, habitats, water quality, water quantity. include--Observations: physical, chemical and biological components; changes in physical, chemical, and biological processes.

a. current status and risk assessment of indicators
b. Literature cited
c. List of authors and reviewers

Section 2B: The Socio-Economic Condition of Puget Sound (*primary author plus 1 additional author*)

a. analogous to 2A for state of social science: current status and changes in human well-being and human health; risk assessment

Begin writing October 2009; Final draft for wiki posting by June 2010

Section 3: Impacts of Natural Events and Human Activities on the Ecosystem (*primary author plus 2 additional authors*)

b. Natural and anthropogenic drivers and their impacts (e.g., DPSIR)
c. include: couplings between ecosystem components, processes
d. Ecosystem models and their evaluation
e. Future projections due to changes in natural drivers

Section 4: Strategies to Protect and Restore the System (*primary author plus 1 additional author*)

a. Effects of protection and restoration actions on biophysical and socio-economic condition of Puget Sound
b. other sub-sections as above or as needed

Synthesis: Implications of Scientific Findings for Adaptive Management of Action Agenda *(internal author*)

a. Key findings of this report: Status, Impacts, Strategies
   e.g., which strategies are most certain to change ecosystem condition or function?, what sequencing guidance, etc.?
b. Key remaining scientific uncertainties and research needs

Summary for policy-makers (*internal author*)

Author selection

A Request for Proposals (RFP) will be used to solicit author teams for synthesizing and writing sections of the document. Author teams will be compensated for their time.

May 2009 Solicitation of author teams for 1st set of chapters by Science Panel

- Open solicitation requesting proposed author teams with description of criteria for selection. Solicitation to include project description, compensation range for time commitment. Selection of author teams will include criteria:
  - teams include at least one senior scientist who has made significant contributions to peer reviewed literature in his/her field; at least 20 years of research experience, demonstrated excellence in synthesis and writing skills, and national or international recognition for quality of scientific contributions to field.
  - other team members demonstrate excellence in scientific field of study, writing and synthesis skills, and encourage breadth of scientific sectors/institutions represented in team (e.g., academic, agency scientists).

July 2009 Selection and confirmation of author teams by Science Panel

Sept 2009 Solicitation for second set of author teams as above

Oct 2009 Selection and confirmation of 2nd group of author teams by Science Panel

Writing and review process

Described below for first set of chapters (second set similar, lagged by few months)

July-Aug 2009 First lead author meeting, writing of first draft begins

Writing is conducted by lead author teams from chapter outlines after discussion with other lead authors and Science Panel. Focus is on synthesis of the state of our understanding based on existing information and clarification of areas of remaining uncertainty (i.e., gaps in knowledge).

late Nov 2009 First draft submitted to technical editors

January 2010 First draft available to external reviewers for 4-week review period (offer chance to provide comment during peer review meeting).

February 2010 Second lead author meeting for 1st set chapters

March 2010 Submit final draft to technical editors, preparation for web posting

April 2010 Final draft first set of chapters made available on web site